



Example Add. $(2\frac{5}{8} + 1\frac{2}{3}) + 1\frac{1}{8}$

Use the Commutative Property and the Associative Property.

$$\begin{aligned}
 (2\frac{5}{8} + 1\frac{2}{3}) + 1\frac{1}{8} &= \left(\frac{17}{4} + \frac{5}{3} \right) + \frac{9}{8} \\
 &= \frac{17}{4} + \left(\frac{5}{3} + \frac{9}{8} \right) \\
 &= \frac{17}{4} + \frac{53}{24} \\
 &= \frac{101}{8} \\
 &= 12\frac{5}{8}
 \end{aligned}$$

Use the Commutative Property to put fractions with like denominators next to each other.

Use the Associative Property to group fractions with like denominators together.

Use mental math to add the fractions with like denominators.

Write equivalent fractions with like denominators. Then add.

Try This! Use properties to solve. Show each step and name the property used.

A $5\frac{1}{4} + (\frac{3}{4} + 1\frac{5}{12})$

B $(\frac{1}{5} + \frac{3}{10}) + \frac{2}{5}$

Name _____

Share and Show



Use the properties and mental math to solve.

1. $\left(2\frac{5}{8} + \frac{5}{6}\right) + 1\frac{1}{8}$

✓ 2. $\frac{5}{12} + \left(\frac{5}{12} + \frac{3}{4}\right)$

✓ 3. $\left(3\frac{1}{4} + 2\frac{5}{6}\right) + 1\frac{3}{4}$

Math Talk

MATHEMATICAL PRACTICES

Explain how solving Exercise 3 is different from solving Exercise 1.

On Your Own

Use the properties and mental math to solve.

4. $\left(\frac{2}{7} + \frac{1}{3}\right) + \frac{2}{3}$

5. $\left(\frac{1}{5} + \frac{1}{2}\right) + \frac{2}{5}$

6. $\left(\frac{1}{6} + \frac{3}{7}\right) + \frac{2}{7}$

7. $\left(2\frac{5}{12} + 4\frac{1}{4}\right) + \frac{1}{4}$

8. $1\frac{1}{8} + \left(5\frac{1}{2} + 2\frac{3}{8}\right)$

9. $\frac{5}{9} + \left(\frac{1}{9} + \frac{4}{5}\right)$